

DEPARTMENT OF ENERGY FUNDS-OUT INTERAGENCY AGREEMENT

1.a. ADDRESS OF ISSUING DOE OFFICE U.S. Department of Energy Idaho Operations Office 850 Energy Drive, MS-1221 Idaho Falls, ID 83401-1563		2. a. RECIPIENT/PERFORMING AGENCY U. S. Department of Commerce National Oceanic and Atmospheric Administration ARL, Field Research Division 1750 Foote Drive, MS 2600 Idaho Falls, ID 83402-4901	
b. ADMINISTERED FOR DOE BY: U.S. Department of Energy Idaho Operations Office 850 Energy Drive, MS-1221 Idaho Falls, ID 83401-1563 Kara L. Twitchell, Contract Specialist (208) 526-4958; fax 526-5548 Email: twitchkl@id.doe.gov		b. BUSINESS CONTACT Paula Fee (208) 526-2329 Email: paula.fee@noaa.gov U. S. Department of Commerce National Oceanic and Atmospheric Administration ARL, Field Research Division 1750 Foote Drive, MS 2600 Idaho Falls, ID 83402	
3. a. DOE IA No.: DE-AI07-02ID14131 b. Modification No. A000 c. PR No. 07-02ID14131.000 and 07-02ID14131.001 d. Recipient/Performing Agency Agreement No.:		c. PROGRAM DIRECTOR/TECHNICAL CONTACT Dr. Timothy L. Crawford, Director Dr. Kirk L. Clawson, Deputy Director U. S. Department of Commerce Email: kirk.clawson@noaa.gov National Oceanic and Atmospheric Administration ARL, Field Research Division, 1750 Foote Drive, Idaho Falls, ID 83402-4901	
4. TYPE OF ACTION (X) New () Incremental Renewal () Other		5. AUTHORITY The Economy Act of 1932 (31 U.S.C. 1535); P.L. 95-91	
6. PROJECT TITLE: Air Resources Laboratory Field Research Division (ARLFRD) Annual Program Support - NOAA provides DOE-ID and its contractors support in the following areas: meteorological basic data collection, system maintenance, and quality assurance; emergency preparedness and response; and environmental surveillance support and special measurements.			
7. a. PROJECT PERIOD From: 10/01/2001 To: 09/30/2006		b. FUNDING PERIOD From: 10/01/2001 To: 09/30/2002	
8. ACCOUNTING AND APPROPRIATIONS DATA a. Prior Funding Obligations \$0			
b. Approp. Symbol		c. B&R No.	
d. Amount		e. Allotment Symbol/FT/AFP/OC	
f. CFA No.			
WA 89x0222.91	820101000	\$ 68,000	OPI CH90 FLUCH900003
89X0242.91	EW02D1150	\$570,000	253 OIM-101 XID=09043494
g. Tot. Funds Oblig. This Action \$638,000		h. Total Funding Oblig. \$638,000	
9. METHOD OF PAYMENT: ___Advance <u>X</u> Reimbursement		10. BILLING INSTRUCTIONS: <u>XX</u> IPAC ___ S.F. 1080 Invoice Submit to: U.S. Department of Energy Idaho Operations Office Financial Services Division 850 Energy Drive, MS-1242 Idaho Falls, ID 83401-1563	
11. DOE PROGRAM OFFICER (Name, address, telephone/fax nos., Email address) U.S. Department of Energy Idaho Operations Office 850 Energy Drive, MS 1216 Idaho Falls, ID 83401-1563 Betsy Jonker, Program Manager (208) 526-9855; FAX (208) 526-1926 Email: jonkerbs@id.doe.gov			
12. DOE CONTRACTING OFFICER		13. ACCEPTANCE:	
(SIGNATURE)		(SIGNATURE)	
(DATE)		(DATE)	
NAME /TITLE: DALLAS L. HOFFER CONTRACTING OFFICER		NAME/TITLE:	

Statement of Work (SOW)

**National Oceanic and Atmospheric Administration (NOAA)
Air Resources Laboratory Field Research Division (ARLFRD)
U.S. Department of Energy, Idaho Operations Office (DOE-ID)**

The Air Resources Laboratory Field Research Division (ARLFRD) of the National Oceanic and Atmospheric Administration (NOAA) shall provide the U.S. Department of Energy, Idaho Operations Office (DOE-ID) assessments of local winds, temperatures, precipitation, moisture content of the air, and unusual or severe weather phenomena. Related meteorological measurement systems shall be maintained, data shall be collected, quality controlled and archived, and supplemental summary statistics and routine types of calculations shall be prepared and provided to DOE-ID and Idaho National Engineering and Environmental Laboratory (INEEL) contractors.

The ARLFRD staff shall provide DOE-ID and its contractors with emergency response support, as needed; provide calculations that examine potential consequences of INEEL operations to the onsite and offsite environment; and provide data and calculations to aid in the design of new facilities or construction programs at existing facilities.

The ARLFRD shall use the guidance in the "Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance," DOE/EH0173T, and general industry standards for the meteorological monitoring program.

Nothing in this scope of work shall preclude ARLFRD from performing similar activities, but beyond this scope of work, for DOE-ID contractors, for industry, other government agencies, or other NOAA organizations. Work for others shall be fully reimbursed by the other organization and any use of equipment or facilities provided by DOE-ID shall be on a non-interference basis with work for DOE-ID.

TASK 1. BASIC DATA COLLECTION, SYSTEM MAINTENANCE, AND QUALITY ASSURANCE

The ARLFRD shall maintain the current INEEL-related meteorological measuring system including basic meteorological data collection, data archival, system maintenance, and quality assurance. Furthermore, ARLFRD shall respond in a timely manner to routine requests for meteorological information. The system shall support the Emergency Preparedness and Environmental Surveillance tasks listed below.

Specifically, ARLFRD shall provide data collection at 33 locations on and around the INEEL Site. The primary radio repeater station (Jumpoff Peak) shall also be maintained. The following parameters shall be measured at the 33 locations:

1. Wind speed and direction as follows:
 - a. at 30 locations where 15-m towers are installed: the 15-m level
 - b. at the three tall tower locations: the 10-m and tower-top levels
2. Air temperatures as follows:
 - a. 30 locations where 15-m towers are installed: at the 2-m and 15-m levels
 - b. three tall tower locations: at 2-m, 10-m, and tower-top levels
3. Barometric pressure (16 locations)

**Funds-Out Interagency Agreement General Provisions/Requirements
Department of Energy Interagency Agreement**

1. Incurrence of Costs: NOAA is not authorized to expend or commit funds in excess of the amount obligated in Block 8.h. of the Face page. It is anticipated that the funds provided by this agreement will be insufficient to complete the entire five-year work requirements. The DOE-ID Contracting Officer may obligate additional funds by a written modification to this agreement. However, ARL, Field Research Division (ARLFRD) will achieve full cost recovery.
2. Delivery Requirements (if any): The statement of work (SOW) contained in this agreement, defines the deliverables to be submitted.
3. Reporting Requirements: Technical reports that document and summarize all of the work completed under this agreement will be sent via email to: DOE-ID, Contract Administrator (Face page, Block 1b), DOE-ID, Program Manager (Block 11), and Argonne National Laboratory-West (ANL-W).

<u>Description of Deliverables</u>	<u>Frequency</u>	<u>Email</u>
- Technical Progress Report	Quarterly	Face page, Blocks 1b and 11
- Contributes to the preparation of the NESHAP and annual site environmental reports	Yearly	Face page, Blocks 1b and 11

NOTE: The statement of work (SOW) contains additional reporting requirements and information. The SOW is attached to this agreement.

4. Patents and Technical Data: Disposition of rights to inventions made in any contract, grant or cooperative agreement under this agreement with any small business firm or domestic nonprofit organization will be in accordance with 37 CFR 401. In all other contracts, grants or cooperative agreements under this agreement, the performing agency shall coordinate the disposition of rights in inventions with the DOE Patent Counsel.
5. Issue Resolution: Unless otherwise indicated below, it is expected that programmatic issues will be resolved by NOAA's Program Director/Technical Contact listed in the Face page, Block 2.c. and the DOE-ID Program Manager, Face page Block 11. Any administrative issues including billing questions, unresolved items or issues requiring a formal change to this agreement will be addressed to the DOE-ID Contracting Officer, Face page, Block 12.
6. Termination: Either party may terminate this agreement with 30 days advance written notice to the other agency. If terminated, NOAA will be reimbursed, for obligations incurred prior to the effective date of the termination and for commitments extending beyond the effective date of the termination that NOAA cannot cancel through the exercise of reasonable diligence. Payments will not exceed the amount(s) obligated under this agreement.
7. Financing:
 - a. DOE-ID's preferred method for reimbursing NOAA is via the Intra-governmental Payment and Collection System (IPAC). Each IPAC charge must clearly refer to the IA No. cited in Block 3.a. of the Face page. If IPAC is not a satisfactory billing method, a mutually agreeable alternative must be negotiated before any work begins.
 - b. Any funds advanced that remain unexpended at the end of the original period of performance may be used, where consistent with appropriations law requirements, for

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incomplete work, or for increased work scope if this agreement is amended to extend the period of performance beyond the original completion date.

8. INEEL Access Safety:

The DOE-ID M&O contractor (M&O) is responsible for the safe conduct of operations within facilities at the Idaho National Engineering and Environmental Laboratory (INEEL) and within other facilities it occupies or controls. Work at these facilities must be performed consistent with M&O tenant manuals (i.e., MCP-3640) and area procedures that apply to the work activity. You will develop an interface agreement with the M&O, subject to DOE-ID approval, on matters not governed by tenant manuals or area procedures or on matters where deviation from the tenant manual or area procedures is necessary. You will also work cooperatively with the M&O to clearly: 1) define, demarcate and document work control boundaries; 2) define and document work control boundary roles and responsibilities; and, 3) define and document practices and procedures that apply at work control boundaries. You will coordinate your work activities with appropriate M&O Site Area Directors (SAD) and provide input on activities to the SAD plan of the day/week/month meetings. M&O interface under this clause will not involve supervision of NOAA personnel.

DOE-ID has primary responsibility for safety and health oversight if you have an agreement directly with DOE-ID. However, the M&O also has the authority to stop work if it determines the work is unsafe to workers, the public, or the environment.

DOE-ID and NOAA will mutually resolve any conflict between requirements imposed by this provision and requirements imposed by other sources.

This clause does not apply to facilities operated and controlled by NOAA.

9. Statutory Authority:

The statutory authorities for ARLFRD to undertake this agreement are:

- a. 15 U.S.C. 1525, which authorizes the Secretary of Commerce to undertake special studies on behalf of non-profits.
- b. 33 U.S.C. 883d, which authorizes the Secretary of Commerce to undertake Investigations in geophysical sciences.

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4. Relative humidity (33 locations)
5. Precipitation (21 locations)
6. Solar radiation (21 locations)
7. Nuclear radiation by Geiger-Mueller Tubes (33 locations)

Remotely-operated high-volume air samplers shall also be maintained at 31 locations. The meteorological tower at the summit of Big Southern Butte shall be maintained with its attendant instrumentation.

ARLFRD, without additional cost to DOE, may acquire meteorological and supporting data from additional sources to enhance and support DOE meteorological measurements. For example, soil temperatures are being acquired at the Aberdeen station and pressurized ionization chamber data are being acquired from several stations maintained by the State of Idaho, Bechtel BWXT Idaho, LLC (BBWI) DOE-ID's Management and Operations (M&O), and the offsite environmental monitoring contractor, currently Stoller Corporation.

INEELVIZ clients shall be provided at: 1) the Central Facilities Area Emergency Control Center (CFA ECC), 2) the DOE-ID Warning Communications Center (WCC), 3) the DOE-ID Emergency Operation Center (EOC), 4) the CFA Alarm Room, and 5) the INTEC Security Facility (Post 505). Meteorological data text displays shall be provided at 1) WCC, and 2) the CFA Alarm Room. Dial-up access shall be maintained to provide meteorological data in text form should the INEEL LAN become inoperable.

ARLFRD shall provide measurements of winds and temperature aloft with a radar wind profiler system. This shall include data acquisition, data storage, data archival, and Quality Assurance (QA) and Quality Control (QC). The ARLFRD shall continue working to integrate the radar profiler data into models and forecasts.

ARLFRD shall perform daily (work days) checks of the meteorological system performance and of the daily collection of meteorological sensor data, and shall archive the data. The ARLFRD shall perform semiannual calibrations and preventative maintenance of the meteorological equipment.

The ARLFRD shall maintain a Quality Assurance (QA) and Quality Control (QC) program. The program shall include physical and safety audits of the meteorological monitoring system field locations (on a rotating three-year basis), performance audits of the system, data quality control, and review of the quality assurance plan and procedures at regular intervals with revisions as needed.

For INEEL Mesonet data requests other than those specifically outlined in this document, the ARLFRD shall provide that data at no additional charge to the DOE or to the M&O Contractor if the effort of assembling that database requires 2 hours of labor or less. Otherwise, the ARLFRD is to recoup labor costs and supplies from the requestor.

TASK 2. EMERGENCY PREPAREDNESS AND RESPONSE

The ARLFRD shall operate the meteorological measurement system for monitoring accidental

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releases of hazardous and radiological chemicals into the atmosphere, as well as predicting the transport and dispersion of these chemicals. ARLFRD shall support the emergency preparedness program by staffing the EOC during emergencies, exercises, and drills, by issuing notices of severe weather events, and by providing information to emergency operating centers through INEELVIZ display terminals.

The ARLFRD shall provide routine calculations and atmospheric modeling results for emergency response plans, tests, and critiques, and for actual emergencies. During actual emergencies, information provided shall include basic meteorological data, local and regional airflow assessments and forecasts, and transport and dispersion calculations.

The ARLFRD shall maintain forecast redundancy capability in the Emergency Operating Center (EOC) through Emergency Managers Weather Information Network (EMWIN), a satellite system maintained by the National Weather Service. The ARLFRD shall similarly explore ways to provide redundancy in the EOC for other products in the event that the major communication pathway (LAN) into the EOC fails.

TASK 3. ENVIRONMENTAL SURVEILLANCE SUPPORT AND SPECIAL MEASUREMENTS

The ARLFRD shall analyze the data from the meteorological measurement system to provide the basis for dose assessments in the annual National Emission Standards for Hazardous Air Pollutants (NESHAP) report and the annual INEEL Site Environmental Report. The ARLFRD shall provide prompt notification of extreme precipitation events as required by the Storm Water Pollution Prevention Plans.

Climatological assessments, forecasts, and consultations shall be provided, including those for local winds, temperatures, precipitation, humidity, and severe weather. Furthermore, specialized forecasts shall be provided to DOE-ID and INEEL contractors to support seasonal construction activities and other activities, as requested. Monthly climatological statistics shall be provided to DOE-ID, INEEL, and other agencies.

The ARLFRD shall provide to DOE-ID an annual assessment of atmospheric dispersion from which estimates of the potential on- and off-INEEL impacts of INEEL activities can be calculated. Calculations for the NESHAP and annual site environmental reports shall be provided to DOE-ID and Stoller Corporation on a yearly basis. If modifications to the output are requested by Stoller Corporation, the assessment will be provided on a time line agreeable to ARLFRD and Stoller Corporation.

The ARLFRD may provide special measurements and calculations upon DOE-ID request with additional funding for:

1. Data measurements at special locations
 - a. Siting and design considerations of construction programs
 - b. Specialized applied calculations using atmospheric transport and diffusion models
2. Special types of data measurements such as:
 - a. Atmospheric tracer measurements
 - b. Constant volume balloon trajectories

TASK 4. ENHANCEMENTS TO THE SYSTEM

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The ARLFRD shall provide additional user applications and enhancements to the meteorological measurement and display system commensurate with funding levels. The ARLFRD shall improve climatological data collection and archival, enhance work station displays and update the database and models. The ARLFRD could also enhance, modify, or replace Mesonet Diffusion Model (MDIFF), the transport and dispersion model used by INEELVIZ, if requested and separately funded by DOE-ID. Such enhancements or modifications may include: 1) accounting for deposition, 2) incorporating slope flow algorithms, 3) separate radionuclide tracking and decay, 4) incorporation of mesoscale meteorological forecasts for 12-24 hour trajectory and dispersion forecasts, and 5) incorporation of three-dimensional wind field calculations.

Additional equipment may be evaluated and purchased that enhance the utility of the system. This task is to be undertaken only if ARLFRD is convinced that sufficient funds are available to accomplish all of the other tasks of this statement of work (SOW) or if and when additional funds are provided.

TASK 5. PROGRESS REPORTS

The ARLFRD shall submit all reports to the following:

DOE-ID, Contract Specialist
DOE-ID, Program Manager
Argonne National Laboratory-West (ANL-W)

The quarterly progress reports shall provide a brief description of the work accomplished under each task, including a description of work performed in response to requests, the data availability from the system by day and station, and the estimated expenses for the quarter. The reports shall be sent to all interested parties via email not later than thirty days after the end of each quarter.